

CLAIMS

1. An optical film comprising:
 - a transparent polymer film (b); and
 - 5 a birefringent layer (a) formed of a polymer and laminated above the transparent polymer film (b),
 - wherein the birefringent layer (a) and the transparent polymer film (b) satisfy a formula (1) below,
 - the birefringent layer (a) satisfies formulae (2) and (3) below, and
 - 10 the polymer forming the birefringent layer (a) has a weight-average molecular weight in a range between 10,000 and 400,000 inclusive,
 - $$\Delta n(a) > \Delta n(b) \times 10 \quad (1)$$
$$1 < (n_x - n_z) / (n_x - n_y) \quad (2)$$
$$0.0005 \leq \Delta n(a) \leq 0.5 \quad (3)$$
 - 15 where $\Delta n(a)$ is a birefringence of the birefringent layer (a) and is represented by $[(n_x + n_y) / 2] - n_z$,
 - $\Delta n(b)$ is a birefringence of the transparent polymer film (b) and is represented by $[(n_x' + n_y') / 2] - n_z'$,
 - n_x , n_y , and n_z represent refractive indices in an X-axis direction, a Y-axis direction, and a Z-axis direction in the birefringent layer (a),
 - 20 respectively, with the X-axis direction being an axial direction exhibiting a maximum refractive index within a plane of the birefringent layer (a), the Y-axis direction being an axial direction perpendicular to the X-axis within the plane, and the Z-axis direction being a thickness direction perpendicular to the X-axis and the Y-axis, and
 - 25 n_x' , n_y' , and n_z' represent refractive indices in an X-axis direction, a Y-axis direction, and a Z-axis direction in the transparent polymer film (b), respectively, with the X-axis direction being an axial direction exhibiting a maximum refractive index within a plane of the transparent polymer film (b),
 - 30 the Y-axis direction being an axial direction perpendicular to the X-axis within the plane, the Z-axis direction being a thickness direction perpendicular to the X-axis and the Y-axis.
2. The optical film according to claim 1, wherein the birefringent layer (a) is
- 35 laminated directly on the transparent polymer film (b).
3. The optical film according to claim 1, wherein the polymer forming the

birefringent layer (a) is a non-liquid crystalline polymer.

4. The optical film according to claim 3, wherein the non-liquid crystalline polymer is at least one polymer selected from the group consisting of
5 polyamide, polyimide, polyester, polyetherketone, polyaryletherketone, polyamide imide, and polyesterimide.
5. The optical film according to claim 1, wherein the transparent polymer film (b) is a protective film for a polarizer.
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6. The optical film according to claim 1, wherein the transparent polymer film (b) is a polarizer comprising a polyvinyl alcohol-based film.
7. A laminated polarizing plate comprising an optical film, wherein the
15 optical film is the optical film according to claim 1.
8. A liquid crystal panel comprising a liquid crystal cell and an optical member, the optical member being arranged on at least one surface of the liquid crystal cell, wherein the optical member is the optical film according to
20 claim 1 or the laminated polarizing plate according to claim 7.
9. A liquid crystal display comprising a liquid crystal panel, wherein the liquid crystal panel is the liquid crystal panel according to claim 8.
- 25 10. A self-light-emitting display comprising the optical film according to claim 1 or the laminated polarizing plate according to claim 7.